

GP-302994

WELD NUGGET INOCULATION

Abstract of the Disclosure

A weld nugget between aluminum alloy parts is inoculated with a material in order to refine the grain structure of the weld and thereby improve its mechanical strength. The inoculate may be a Ti or Na based compound in the form of a paste, powder or film, which is applied to the sheets before welding. The inoculation promotes nucleation of desirable equiaxed grain within the molten weld nugget as the weld cools and solidifies.